

are long since extinct, and deplores the sad reality that some ancient lineages of crocodilians may become extinct in the near future due to human activities. This chapter also explores the popular idea that crocodilians are 'living dinosaurs', despite the fact that no extant species truly 'walked with the dinosaurs', and that, in a cladistic sense, crocodilians are more closely related to birds than lizards.

The following two chapters examine life and death from opposing perspectives. Firstly, we see how humans have long hunted crocs for food, leather, fat for fuel, and how humans protect themselves from, or retaliate against, a 'man-eater'. This is followed by chilling accounts from some of the very few people who have survived attacks by the Saltwater Crocodile. Farming of crocodiles is as controversial as the hunting of these animals. Even the experts remain divided on this topic; Steve Irwin was passionately opposed to this practice, whereas renowned croc expert Grahame Webb is equally vehement in his belief in the benefits for crocs of farming. Kelly also examines the role of farming and captive breeding in conservation.

The final two chapters examine the relationship of humans to crocodilians in captivity and in popular culture. The practicalities of keeping crocodilians as pets are discussed, followed by the role of these animals in zoological parks. At this point

the book provides a local flavour, with interviews with two of Victoria's most experienced reptile keepers – Jon Birkett from Melbourne Zoo and Greg Parker from the Ballarat Wildlife Park. Birkett exemplifies the devotion to conservation programs that is evident in so many zoo staff. Far from being glorified cage-cleaners, Birkett and his staff play an active and vital role in numerous conservation programs for threatened herpetofaunal species from around the world. The book concludes with an examination of crocodilians in popular culture, from *Peter Pan* and Rudyard Kipling, to *Crocodile Dundee* and the *Crocodile Hunter*.

This book is not a field guide, and is not entirely devoted to the biology of crocodilians (there are other, more 'dry' texts that fill that role). Rather, it provides an 'holistic' understanding of crocodilians, and their relationships with their environments, and perhaps the only other predator that a grown croc should fear – humans. I enjoyed this book, and believe that it will appeal to anyone with an interest in natural history or large, iconic predators.

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The Complete Field Guide to Dragonflies of Australia

by Gunther Thieschinger and John Hawking

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Both the authors of this comprehensive guide have been studying Odonata for much, if not all, of their professional lives. Indeed Gunther Thieschinger, along with Tony Watson and Hilda Abbey, was a co-author of *The Australian Dragonflies* published in 1991. That book dealt largely with adults, and keys were provided only for that stage of the life cycle. The current volume can be seen as a 'descendant' of the

former publication and for the first time provides keys to the final instar larvae as well as to the adults, thus making it a useful, if not an essential, reference for the many freshwater biologists like myself who encounter these larvae. In what follows, I have restricted my comments largely to the larvae, as this is where my experience lies.

A total of 324 species are described and illustrated from 12 families of damselflies



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and 18 families of dragonflies. Photos of adults and line drawings or photos of many larvae are given, although for a number of species larvae are still not known. Distribution details are provided on maps of Australia divided into 16 regions. (These are the same regions employed by Watson *et al.* in 1991.) The bulk of the book (pp.16-299), however, comprises species accounts which, in addition to descriptions of the adults and larvae, give habitat notes for almost every species, and information about extra-limital distribution where relevant. Descriptions of the larvae are somewhat shorter than those for the adults, but together with the keys that follow the species accounts, they should enable genera and many species of larvae to be readily determined. Unfortunately, not all species can be keyed at the larval level. However, the distribution maps should help here. Only the final larval instar is described and illustrated, and users need to realise that more immature larval stages will always be more difficult to put to species, as is the case for the larvae and nymphs of nearly all aquatic insects.

I worked my way through the larval key to families and generally found it easy to use. Separate larval keys are given to genera and some species for each family. An illustrated glossary is provided for both adults and larvae (before the keys). Such details are vital for beginners, who need to know their way around the anatomy of both larvae and adults if they are to be successful in identifying specimens. The only omission I noted was that the 'frontal plate' of a larva was not illustrated in the family key or in the glossary. However, it is illustrated in the species accounts for *Archaeosynthemis* and *Synthemis* as well as in the key to Synthemistid genera and species. It is a pity that the informative glossary of terms associated with larval anatomy given by the two authors in an earlier publication (*Dragonfly Larvae (Odonata): A guide to the identification of larvae of Australian families and to the identification and ecology of larvae from NSW*; CRCFE Identification Guide No. 34, Feb 1999) is not repeated in this book.

I feel sure this book will enable enthusiasts, both amateur and professional, to identify Odonata accurately and will greatly encourage study of this fascinating group of insects. In many parts of the world various groups of aquatic insects are poorly known because identification keys for the non-specialist are simply not available. By providing such keys the authors have given a great stimulus to studies (particularly field studies) of Odonata in Australia. The small size of the book (A5) will encourage its use in the field, and with experience identifications could be done on site, as the authors hope. The book should also pave the way for more concern about the conservation of dragonflies and damselflies, some of which have limited distributions.

I cannot recommend this book highly enough to those interested in Australian Odonata and freshwater habitats. It will appeal to everyone, from beginners to students and researchers, and should become the first reference book that anyone interested in Australian Odonata will consult.

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